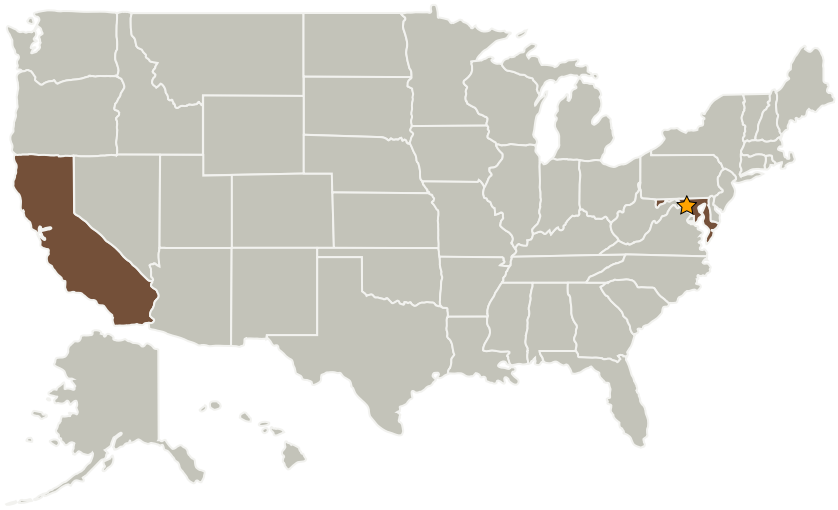
Universal Space IP Transparent Proxy, Phase I

Completed Technology Project (2005 - 2005)

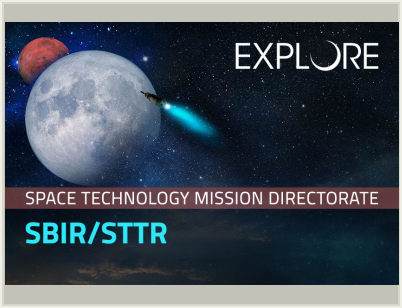
Project Introduction

NASA requires protocols and architectures that will allow reduced levels of mission funding, shorter mission development schedules, and facilitate high availability of flight electronic components. The administration is strategically moving towards Internet based architectures and technologies. Internet protocols, however, are not designed for space communications and must be seamlessly adapted to support the characteristics of this environment. We are proposing the development of a Universal Space IP Transparent Proxy that leverages an innovative modular architecture to achieve accurate network monitoring and measurement as a means to effectively deal with design and performance problems of IP protocols in space environments.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Goddard Space Flight Center(GSFC)	Lead Organization	NASA Center	Greenbelt, Maryland
Broadata Communications, Inc.	Supporting Organization	Industry	Torrance, California



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Goddard Space Flight Center (GSFC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Primary U.S. Work Locations	
California	Maryland

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Matheos Kazantzidis

Technology Areas

Primary:

- TX05 Communications, Navigation, and Orbital Debris Tracking and Characterization Systems
  - TX05.3 Internetworking
    - TX05.3.4 Integrated Network Management